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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,648	02/16/2006	Hans-Jürgen Weiss	6281-000015/US/NP	6586
27573 7590 06/16/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER				
COOLEY, CHARLES E				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
06/16/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/556,648

Applicant(s)

WEISS ET AL.

Examiner

Charles E. Cooley

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 9-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 20 April 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CIS)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

FINAL OFFICE ACTION

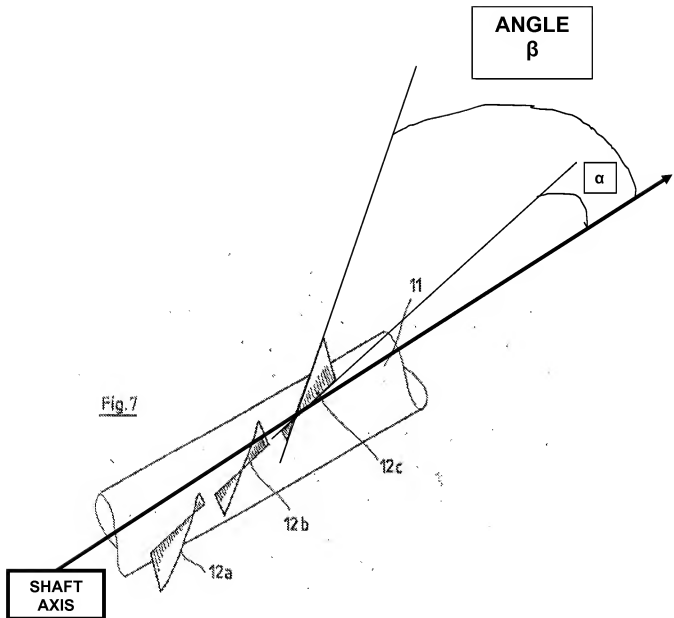
Priority

1. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All of the CERTIFIED copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

Drawings

2. The replacement sheets #1 and #2 filed 20 APR 2009 are approved. Replacement sheet #3 is disapproved because new Fig. 7 is not described in the instant specification (either under the "DRAWINGS" heading or in the "DETAILED DESCRIPTION" section) and new Fig. 7 appears to show exactly the opposite of what is claimed and disclosed.

3. It appears in new Fig. 7 that the angle of incidence α at the fastening point of the shaft is less than the angle of incidence β at the outer portion of the any of the blades 12a-12c. In other words for example, a line drawn through the base of the blade 12c forms an angle with respect to the axis of the shaft 11 that is less than the angle formed by the line drawn through the outer portion of the blade (i.e., $\beta > \alpha$) which the opposite of the disclosure and claimed invention (note the marked-up depiction below taken from Fig. 7). Accordingly, one or more new Figures (described in the appropriate locations of the specification) are required to clearly depict the claimed subject matter. Note the various Figures of currently cited US Patents to Rose et al. and Reiner for examples of clearly depicting blades shapes/geometries.



4. Therefore, the drawings remain objected to because of the following informalities:
 - a. the recited incidence angles and curvature of the blades is poorly shown and not readily ascertained from any of the drawing figures – one or more perspective or other views that clearly show such subject matter should be provided.
- Correction is required.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

5. The disclosure is objected to because of the following informalities:
 - a. The specification lacks references to new Fig. 7 as noted above.Appropriate correction is required.
6. The abstract is acceptable.

Claim Rejections - 35 U.S.C. § 112, second paragraph

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. New claims 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9-12: all occurrences of "incidents" must be changed to --incidence--.

Claims 9, 11, and 12: the scope of these claims permits $\alpha = \beta$ thus it is unclear how angle α can continuously decrease to the angle β if both angles are equal. It appears angle β must be less than angle α to permit the angle α to decrease to the smaller angle β . The claims are thus technically inaccurate and vague and indefinite. Note that claims 11 and 12 recite "the smaller angle if incidents [sic] β " which supports the examiner's conclusion that angle β is less than angle α , contrary to language earlier in these claims. Also note Applicant's remarks in the last full paragraph on pg. 8 of the response related to claim 9.

Accordingly, to overcome this rejection, it appears the claim language "the angle of incidents β at the outer diameter of the blade (D_A) is equal to or less than the angle of incidents α at the shaft diameter (D_W)" in the claims should be changed to "the angle of ~~incidents~~ incidence β at the outer diameter of the blade (D_A) is ~~equal to or~~ less than the angle of ~~incidents~~ incidence α at the shaft diameter (D_W)". Since this claim language is considered critical to the patentability of the independent claims, any significant deviation from this revision may be considered new issues after final rejection.

Allowable Subject Matter

9. Claims 9-12 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112.

Response to Amendment

10. Applicant's arguments with respect to the pending claims have been considered but are deemed to be moot in view of the new grounds of rejection necessitated by amendment.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION. ANY RESPONSE FILED AFTER THE MAILING DATE OF

THIS FINAL REJECTION WILL BE SUBJECT TO THE PROVISIONS OF MPEP 714.12 AND 714.13.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley in Art Unit 1797 whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri.. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles E. Cooley/

Charles E. Cooley
Primary Examiner
Art Unit 1797

16 June 2009